

Application Serial No. 09/769,672
Amendment dated April 1, 2004
Reply to Final Office Action dated January 9, 2004

REMARKS

Applicants submit the present Amendment along with a Request for Continued Examination ("RCE") pursuant to 37 C.F.R. §1.114.

Claims 21-40 are pending. Claim 41 has been added. No claims have been allowed.

Applicants have amended independent Claim 21 to recite the step of raising the temperature of the glass melt to at least 1700° C prior to the homogenizing and conditioning step. Support for this amendment is found on page 3, lines 2-9 of the Specification, which states that "[t]he oxygen reboil tendency of a glass melt decreases if the temperature of the melt is raised to a certain minimum level on the way to the homogenizing station and if, furthermore, polyvalent ions are present in the melt ... [t]he temperature of the melt should be higher than 1700° C, and better still, higher than 2400° C." Raising the temperature of the glass melt higher than 1700° C "on the way to the homogenizing station", *i.e.*, before the homogenizing and conditioning step, provides support for the above limitation in independent Claim 21.

Applicants have also amended Claims 21, 26, 27, and 34-40 to recite a "glass melt" for clarity and consistency throughout the claims.

New dependent Claim 41 has been added, which recites that the glass melt is contained in a crucible made from one of platinum and a platinum alloy in the homogenizing and conditioning step. Support for this amendment may be found in the specification at page 5, lines 1-5 and 14-19.

The Examiner rejected Claims 21-26 and 28-37 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 3,779,733 to Janakirama-Rao ("Janakirama-Rao '733") in view of Tooley (*Handbook of Glass Manufacture*, 1953) ("Tooley"). The Examiner further rejected Claims 27 and 38-40 under 35 U.S.C. §103(a) as being unpatentable over Janakirama-Rao '733 in view of Tooley and further in view of U.S. Patent No. 4,780,121 to Matesa ("Matesa '121").

Janakirama-Rao '733 discloses a method of making a ferrous-containing, heat absorbing glass article. A glass batch is melted at temperatures of about 2600-2900° F [1700-1593° C]. (col. 2, lines 38-39). The glass melt is then passed to a refining section and refined at a temperature of about 2400° F [1316° C]. (col. 3, lines 42-45). Following refining, the glass is formed in a forming operation at a low temperature of between 1500°-2000° F [816°-1093° C]. (col. 2, lines 49-53). In Example 1, the glass is melted and refined in a refractory clay pot. (col. 6, line 38). In

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the remaining Examples II-V, the glass is also melted and refined in a refractory pot. (col. 7, line 49).

Tooley discloses a glass preparation process shown in Fig. IX B on page 242, including the steps of melting, refining, homogenizing, and heat conditioning. On page 244, first paragraph, a 0.5 gram batch of glass material was melted in a small platinum crucible at 1427° C. On page 253, third full paragraph, glass is fined in a platinum crucible. At page 258, bridging paragraph, glass is melted for 16 hours at 1400° C in a stationary platinum crucible.

Matesa '121 discloses a process for the rapid induction heating of molten glass, wherein the temperature of molten glass is raised by induction heating "to about 2500° F. (1370° C.) or as high as about 2800° F. (1540° C.)." (col. 6, lines 29-30).

Applicants respectfully submit that independent Claim 21 is not obvious over Janakirama-Rao '733 in view of Tooley because each of the foregoing references, either alone or in combination, fails to disclose each and every limitation of independent Claim 21. Specifically, independent Claim 21 calls for raising the temperature of the glass melt to at least **1700° C** prior to a homogenizing and conditioning step. By contrast, Janakirama-Rao '733 discloses melting and refining glass at lower temperatures, specifically, melting at 2600- 2900° F [**1427-1593° C**], and refining at 2400° F [**1316° C**]. Additionally, as the Examiner acknowledges, Tooley is largely silent as to specific working conditions, but does not appear to disclose either melting or refining glass at temperatures higher than 1427° C. Matesa '121 discloses a process for the rapid induction heating of molten glass, wherein the temperature of molten glass is raised by induction heating "to about 2500°F. (1317°C) or as high as about 2800°F. (1540°C)." (col. 6, lines 29-30).

For the foregoing reasons, Applicants respectfully submit that independent Claim 21 is not obvious over Janakirama-Rao '733, Tooley, or Matesa '121, either alone or in combination. Additionally, because Claims 22-40 each depend from independent Claim 21, Applicants further submit that Claims 22-40 are also not obvious over the foregoing references.

New Claim 41 calls for the process of Claim 21, wherein the glass melt is contained in a crucible made from one of platinum and a platinum alloy in the homogenizing and conditioning step.

Applicants respectfully submit that new Claim 41 is patentable over the foregoing references, because each fails to disclose homogenizing and conditioning a glass melt in a

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crucible made from platinum or a platinum alloy. Janakirama-Rao '733 discloses only melting and refining glass in a "refractory clay pot" (col. 6, line 38). Tooley discloses melting and refining glass in a platinum crucible, but fails to disclose homogenizing and conditioning glass in a crucible made from platinum or a platinum alloy. Matesa '121 also fails to disclose homogenizing and conditioning glass in a crucible made of platinum or a platinum alloy. Thus, Applicants respectfully submit that new Claim 41 is patentable over each of the foregoing references, either alone or in combination.

It is believed that the above represents a complete response to the Official Action and reconsideration is requested. Specifically, Applicants respectfully submit that the application is in condition for allowance and respectfully request allowance thereof.

In the event Applicants have overlooked the need for an additional extension of time, payment of fee, or additional payment of fee, Applicants hereby petition therefor and authorize that any charges be made to Deposit Account No. 02-0385, Baker & Daniels.

Should the Examiner have any further questions regarding any of the foregoing, he is respectfully invited to telephone the undersigned at (260) 424-8000.

Respectfully submitted,



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AFC/mt

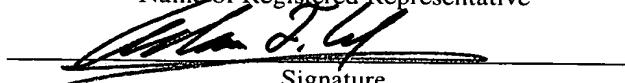
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CERTIFICATION OF MAILING

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on: April 1, 2004

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Name of Registered Representative



Signature

April 1, 2004

Date